

NEW RECORDS OF FISH FROM POONA.

BY

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In the last April issue of the *Journal* (Vol. xliii, No. 1, pp. 79-91, 1942), Capt. A. G. L. Fraser, I.M.D., published the first part of his account of the fishes found in the waterways at Poona, and, besides a general account of the extensive collections made by him in 1936-1937, gave descriptions of localities with lists of fishes collected from each. Dr. S. L. Hora very kindly sent to me the type-scripts of the remaining two parts¹ of the series and suggested that I should supplement Fraser's list by making further collections of fishes from different localities at various seasons. I was further informed that special efforts should be made to collect small, bottom-dwelling forms from among the rocks. Although Fraser had collected representatives of 54 species, including *Bagarius bagarius* (Hamilton) which was collected but not sent to the Indian Museum for determination owing to the large size of the specimens obtained, the expectation of ample scope for further collecting was fully justified by the 17 new records of species from this area.

In the course of my collecting, the following localities were repeatedly visited :

1. The part of the Mutha river between Kadhakwasla Lake and the village of Wadgaon, forming a stretch of about 3 miles of rocky or gravelly runs alternating with pools of some size. The banks of the latter are partly loamy, partly rocky, the bottom being mostly hard and often bouldery. The right bank is covered with heavy bush and tree vegetation, partly orchards, whilst the left bank is more open. Some of the pools are fairly weedy along the banks.

2. The part of the Moola river between Fitzgerald bridge and the village Kharadi, about 4 miles further east; this being in the main a rocky and bouldery stretch, with several broad pools, shallow in the dry season and intersected by little rocky runs.

3. The stretch extending between a point 1 mile above the confluent of the Bhima and Moola rivers to Wadgaon village, some 5 miles east of the confluent, i.e., downriver. This region is a succession of large and partly deep pools, united by shallow runs and ending in the great pool of Wadgaon, over 2 miles long and 100-150 yards wide, after which the river runs through a rocky chasm or 'Khund' about a mile long. Through this the river runs with a terrific turmoil during the rains, but, at the time of my visit, this rocky part was so dry as to be unsuitable for collecting.

The banks on this stretch are high and much eroded by floods. They are partly composed of sandy loam, partly they are Deccan trap rock, and the bottom is sandy in parts, rocky or bouldery in others. The high banks are fairly densely covered with babul jungle, interspersed with such typical Deccan plants as *Capparis aphylla*, *Cassia auriculata*, *Cryptotegia grandiflora*, *Ficus glomerosus*, Nim and Tamarind, the latter forming shady groves, planted by the Forest Department.

The dry weather shoreline shows the usual mixture of Tamarisk, sedges, lilies and coarse grass. There is little aquatic vegetation, as this would be swept off annually by the floods.

4. A visit was paid to the Indrayani river at Kalumbre village, below the sacred pool of Dehu, a fish sanctuary teeming with large carp and mahaseer.

¹ These have since been published in Vol. xliii, No 2 of the *Journal* (p. 218).

It may be stated at the very outset that no attempt at general collecting was made in the localities 1 and 2; this having already been done by Capt. Fraser. Attention was, however, focussed on the procuring of species not contained in his collection.

Locality No. 1 produced *Barilius gatensis* (Cuv. and Val.), new to Poona, *Barilius bendelisis* (Ham.) as well as *Glyptothorax madraspatanum* (Day) and *Osteochilus nashii* (Day). The latter two were mainly procured by dismantling, under a net, large heaps of stones or 'killas' laboriously built by the local Kolis. *Cirrhitina reba* (Ham.) was also collected here, as well as *Garra gotyla* (Gray).

Locality No. 2 yielded the interesting novelty *Mystus bleekeri* (Day), numbers of *Glyptothorax madraspatanum* (Day) and a specimen of *Nemachilus evezardi* (Day), several examples of *Nemachilus anguilla* Annandale were also collected in this stretch, all being supplementary to the Fraser collection.

A general collection, yielding over 40 species, was made in the locality No. 3, as the large and deep pools were expected to provide an asylum for many species, which habitually retire from the vicinity of Poona, where rivers become very shallow after the rains. This assumption proved to be correct, in as much as the pools were found to be well stocked with large specimens of various Labeos, notably *Labeo karorus* (Sykes), *Barbus jerdoni* (Day), *Silonopangasius childrenii* (Sykes), Murrels., *Proeutropichthys taakree* (Sykes), *Rohtee vigorsii* (Sykes), *Bagarius bagarius* (Ham.), and plenty of various Chelas and Rohtees, all of which were caught in large numbers. Curiously enough, *Wallangonia attu* (Block) did not materialise, but is undoubtedly present.¹

From the point of view of my collection, the locality yielded the following interesting species:

Garra bicornuta Rao, *Schismatorhynchus nukta* (Sykes), both very uncommon and curious fish; *Glyptothorax annandalei* Hora and *Mystus montanus* (Jerdon); all in rocky and bouldery situations where there was a flow.

The pools contributed *Aspidoparia morar* (Ham.), *Labeo ariza* (Ham.), *Labeo karurus* (Day) and *Laubuca laubuca* (Ham.) as additional novelties. *Mystacoleucus ogilbii* (Sykes) occurs in numbers.

Mystus montanus frequents rocky places, where it is said to reach enormous size. The local Kolis have traditions of epic fights between such giants and the local croc, here called 'soosir', which they relate with great gusto. The local opinion attributes the cause of these contests to competition for the possession of underwater caves, of which both these monsters are said to be fond.

The pools are richly stocked with *Rita hastata* (Val.), *Rita pavementata* (Val.) and large *Mystus aor* (Ham.); but this season few Mahaseer were caught, all of the stocky and high backed type, now classified by Dr. Hora as a separate species, *Barbus* (*Tor*) *mussullah* (Sykes.).

The gravelly runs yielded specimens of the two *Barilius* already procured at Poona and large numbers of *Nemachilichthys ruppelli* (Sykes) and *Nemachilus anguilla* Annandale.

¹ It has since been collected. (M.S.)

By far the most common Barbel of the region are *Barbus kolus* Sykes, which is abundant, and *Barbus (Puntius) ticto* Hamilton.

The locality No. 3 proved so productive that it would probably be well worth further investigation. Locality No. 4 was visited for the special purpose of procuring a large specimen of the stocky and high-backed Mahaseer. As a result of my collecting, the following 77 species are now added to the list of 54 species obtained by Fraser:—

LIST OF SPECIES SUPPLEMENTING CAPT. FRASER'S COLLECTION

SCIENTIFIC NAMES	MARATHI NAMES	LOCALITY	FURTHER DISTRIBUTION
Order: EVENTOGNATHI			
Family: CYPRINIDAE			
Subfamily: <i>Abramadinæ</i>			
* <i>Laubuca laubuca</i> (Hamilton)	Nagergaon, Bhima river.	North India and Malaya.
Subfamily: <i>Rasborinæ</i>			
<i>Barilius bendelisis</i> (Hamilton)	Jodhie	Mutha, Moola and Bhima.	Ganges and South India.
* <i>Barilius gatensis</i> (Cuv. and Val.)	Jodhie	Nander, Mutha river.	Western Ghats, Nilgherry Hills.
* <i>Aspidoparia morar</i> (Hamilton)	Gor Amblee	Pargaon, Bhima river.	North India.
Subfamily: <i>Cyprininae</i>			
* <i>Barbus (Tor) mussullah</i> (Sykes)	Mussulah	Kalumbre, Indrayani river.	Mysore and Nilgiris.
<i>Cirrhina reba</i> (Hamilton)	Lolee	Pargaon, Bhima river.	India and Ceylon.
<i>Labeo kawrus</i> (Sykes)	Kawrus	Mutha, Moola and Bhima rivers.	Deccan.
...	...	Pargaon, Bhima river.	

* <i>Labeo ariza</i> (Hamilton)	...	Kawrus	Pargaon, Bhima river.	Deccan.
* <i>Osteochilus nashii</i> (Day)	...	Bershee	Nander, Mutha river.	Coorg, Nilgherries,
* <i>Garra gotyla</i> (Gray)	...	Mullya	Nagergaon, Bhima river.	Himalayan region, Satpurus, Vin-
* <i>Garra bicornuta</i> (Rao)	...	Nukta mullya	Nagergaon, Bhima river.	Mysore.
Family : COBITIDAE				
<i>Nemachilus anguilla</i> (Annandale)	...	Mow	Pargaon, Bhima river.	Western Ghats.
<i>Nemachilus evezardi</i> (Day)	...	Moree	Mutha and Moola, Poona.	Western Ghats and the Satpurus.
Moola river, Poona.				
Order : NEMATOGNATHII				
Family : BAGRIDAE				
* <i>Mystus montanus</i> (Jerd.)	...	Kohira	Wadgaon, Bhima.	Coorg, Wynad, Mysore, Travan-
* <i>Mystus bleekeri</i> (Day)	...	Kala seenghal	Moola river, Poona.	core.
Family : SISORIDAE				Burma.
<i>Glyptothorax madraspatanam</i> (Day)	...	Kengra	Mutha and Moola, Poona.	South India.
<i>Glyptothorax annandalei</i> (Hora.)	...	Pivla kengra	Wadgaon, Bhima.	Bhavani river.

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Subfamily: <i>Rasborinæ</i>			
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* <i>Aspöparia morar</i> (Hamilton) ...	Gor Amblee	Pargaon, Bhima river.	North India.
Subfamily: <i>Cyprininae</i>			
* <i>Barbus (Tor) mussullah</i> (Sykes) ...	Mussullah	Kalumbre, Indrayani river.	Mysore and Nilgiris.
<i>Cirrhina reba</i> (Hamilton) ...	Lolee	Pargaon, Bhima river.	India and Ceylon.
<i>Labeo kawrus</i> (Sykes) ...	Kawrus	Mutha, Moola and Bhima rivers.	Deccan.
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* <i>Garra bicolorata</i> (Rao) ...	Nukta mullya	Nagergaon, Bhima river.	Mysore.
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* <i>Mystus bleekeri</i> (Day) ...	Kala seenghal	Moola river, Poona.	core. Burma.
Family: SISORIDAE			
<i>Glyptothorax madraspatanam</i> (Day) ...	Kengra	Mutha and Moola, Poona.	South India.
<i>Glyptothorax annandalei</i> (Hora.) ...	Pivia kengra	Wadgaon, Bhima.	Bhavani river.

The material was very kindly examined by Dr. Hora thus permitting the compilation of the list of species supplementing those contained in Capt. Fraser's collection.

Species marked with an asterisk (*) are novelties, not having been previously recorded from the Poona region; the others, though not obtained by Fraser, are already known to occur in these waters.

I am aware that this number does not cover the entire fish fauna of Poona, which may yield further surprises, quite apart from being known to embrace various species not yet collected by Capt. Fraser or by myself. I allude, amongst others, to such species as *Barilius evezardi* Day, *Rasbora rasbora* (Ham.), *Barbus parrah* Day, *Nemachilus moreh* (Sykes) and other previous records.

SIGNIFICANCE OF NEW FINDS.

My attention was drawn by Dr. Hora to the zoo-geographical significance of some of the species collected, especially of the novelties now recorded for the Poona region, which enable a hydrographic link to be established with some far distant regions.

Alluding to such species as *Osteochilus nashii* (Day), *Barilius gatensis* (Cuv. & Val), *Garra bicornuta* Rao, *Glyptothorax annandalei* Hora, *Mystus montanus* (Jerdon), Dr. Hora pointed out;

'Your collections have brought to light an organic palaeo-hydrographic connection between the faunas of the Bombay section of the Ghats and its southern portion. From a zoo-geographical point of view it is of very great interest indeed and supports the views I have been recently expressing regarding the origin of the fauna of Peninsular India.'

Commenting on the distribution of certain species collected by Capt. Fraser, Dr. Hora and Mr. Misra remarked:

'The occurrence of *Schizmatorhynchus* Bleeker and *Mystacoleucus* Günther is of special significance; besides in the Western Ghats, the former is found only in the Malay Archipelago, while the latter is found in Burma, Siam, Malaya, etc., but nowhere else in India. These two genera show the Malayan affinities of the fauna of this part of the Western Ghats. *Labeo boggut* (Sykes) has also been recorded from the Malaya, but this requires further confirmation.'

The extended distribution of *Laubuca laubuca* (Ham.) and *Mystus bleekeri* (Day) gives further support to these views.

It is intended to continue collections and eventually to draw within their scope the headwaters of some of the local rivers in the Ghat region, where interesting material might be expected.

Remarks to Dr. Fraser's articles on Fishes of Poona.

The following comments and addenda to these articles may be of some interest:

Part 1. *Fish of Lake Fife.* The secret of catching mahaseer in this lake is to drag a 2-3 inch spoon through a shoal of fish, as they chase chilwas on the surface. They do this most often on a calm day before noon and after 4 p.m. Mere blind trolling is not conducive to results, besides being extremely boring.

I have caught mahaseer upto 12 lbs in this lake and seen larger ones. Catches of netting by fishermen I inspected consisted of the following: *Barbus (Tor) khudree*, *Barbus dobsoni-jerdoni*, *Rohtee vigorsii*, *Wallagonia attu*, *Chela phulo* and *Chela boopis*, *Labeo boggut* and *Cirrhina reba*. Murrel are also present.